STATE OF NEW HAMPSHIRE
Department of Environmental Services
Air Resources Division

General State Permit

GSP-NM-_____

Source Category: Nonmetallic Mineral Processing Plants

This general state permit is established in accordance with the New Hampshire Code of Administrative Rules, Env-A 204, *Procedures for Establishing and Reestablishing General State Permits*, Env-A 610, *General State Permits and General Permits Under Title V*, and RSA 125-C of the New Hampshire Laws. The established milestones are as follows:

Date of Proposed General State Permit	August 29, 2008
Date Proposed General State Permit was Sent to EPA	August 29, 2008
Public Notice Date	September 2, 2008
Close of Public Comment Period	October 3, 2008
Public Hearing Date	none
Expiration Date of General State Permit	**October 31, 2013**

ACRONYMS AND ABBREVIATIONS

Division	New Hampshire Department of Environmental Services, Air Resources Division		
NMMPP	Nonmetallic Mineral Processing Plant	tpy	tons per year
USEPA	United States Environmental Protection Agency	tons/hr	tons per hour
CFR	Code of Federal Regulations	g	gram
TSP	Total Suspended Particulates	dscm	dry standard cubic meter
PM_{10}	Particulate matter less than 10 microns	dscf	dry standard cubic feet
SO_2	Sulfur Dioxide	VOC	Volatile Organic Compound
NO_x	Oxides of Nitrogen	HAP	Hazardous Air Pollutant
CO	Carbon Monoxide	RTAP	Regulated Toxic Air Pollutant

This general state permit is issued for the specific Nonmetallic Mineral Processing Plant (NMMPP) described in the registration package submitted to the Division in accordance with Env-A 610.06, *Procedures for Registering to Operate Under a General State Permit*. Any replacement device having a greater capacity than the device it is replacing would require a new or updated registration package to be submitted to the Division for review. This general state permit is valid provided the device(s) are operated in accordance with the conditions within this permit.

_____ _____
Director, Air Resources Division Date of Final Action

I. Source Category Description and Definitions:

A. The source category *Nonmetallic Mineral Processing Plant* is restricted to NMMPPs with a design throughput greater than or equal to the following:

1. 25 tons per hour for fixed plants; or
2. 150 tons per hour for portable plants

B. Definitions:

1. *Affected Facility* means:
   a. Each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station at a nonmetallic mineral processing plant; and
   b. Crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin.
2. *Fixed plant* means any NMMPP at which the processing equipment (crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station) is attached by a cable, chain, turnbuckle, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.
3. *Portable plant* means any NMMPP that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.
4. *Nonmetallic mineral processing plant* means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located. This does not included energy generating devices used at the plant.
5. *Modification* means any physical or operational change to an existing facility, which results in an increase in emissions.
6. *Reconstruction* means the replacement of components of an existing facility to such an extent that
   a. The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility; and
   b. It is technically and economically feasible to meet the applicable standards.

II. Applicable Regulations:

The Owner or Operator of the plant as specified by this general state permit shall be subject to all applicable State and Federal air pollution control regulations, including (but not limited to):

A. The New Hampshire Code of Administrative Rules Env-A 100 et seq., *New Hampshire Rules Governing the Control of Air Pollution*; and

B. The Code of Federal Regulations, 40 CFR 60 Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*, if the following conditions apply:

1. The construction, reconstruction, or modification of the affected facility commenced after August 31, 1983; and
2. The affected facility is not exempt from regulation pursuant to 40 CFR 60 Subpart OOO §60.670, *Applicability and designation of affected facility*.

III. Facility Operation:

All equipment, facilities and systems installed and used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible to minimize air pollutant emissions.

IV. Operating Limitations:

A. The maximum material throughput rate for each device covered by this general state permit shall be limited to the maximum material throughput rate of each device (tons/hr) for the devices listed in the registration package submitted in accordance with Env-A 610.07, *Procedures for Registering to Operate Under a General State Permit*.

B. Total material throughput during any consecutive 12-month period for each device covered by this general state permit shall not exceed a quantity of total material that would result in an exceedance of any condition specified in this general state permit.

C. Equipment Replacement: The Owner or Operator shall be allowed to replace a piece of equipment with a new device of equal or smaller size, having the same function as the existing device by complying with the reporting requirements of Condition IX.B.1.

1. 40 CFR 60.670(d), *Equipment Replacement*: When a device that is not subject to 40 CFR 60 Subpart OOO is replaced by a piece of equipment of equal or smaller size, having the same function as the existing device, the new device is exempt from the provisions of Conditions V.C, and VII.B through H except if an Owner or Operator replaces all existing devices in a production line with new devices.
2. The Owner or Operator may implement the equipment replacement immediately upon filing the report as required in Condition IX.B.1.

V. Emission Limitations[1]:

A. Env-A 2803.01, *Visible Emission Standards for Sand and Gravel Sources*: The opacity of fugitive emissions from any crusher, transfer point, or screen not subject to 40 CFR 60, Subpart OOO shall not exceed 20 % for any continuous 6-minute period.[2]

B. Env-A 2103, *Emission Standards for Particulate Matter*: Any device covered by this general state permit shall be subject to the TSP emission factors as listed in the most recent version of USEPA document AP-42 Section 11.19.2, *Crushed Stone Processing*.

1. If no emission factor is given for TSP, then emissions may be estimated by multiplying the PM_{10} emissions by 2.1.
2. In cases were only uncontrolled factors are listed, a control efficiency of 70% can be assumed if wet suppression is used on or immediately upstream of the device.

C. 40 CFR 60.672, *Standard for Particulate Matter*:

1. Non-Crusher Fugitive Emissions: On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under 40 CFR 60 Subpart A §60.11, *Compliance with Standards and Maintenance Requirements*, no Owner or Operator subject to the provisions of 40 CFR 60 Subpart OOO shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10% opacity, except as provided in Conditions V.C.2 and 3.
2. Crusher Fugitive Emissions: On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under 40 CFR 60 Subpart A §60.11, no Owner or Operator shall cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15% opacity.
3. Truck Dumping Emissions: Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of Condition V.C.
4. Saturated Material Processing Emissions: On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no Owner or Operator shall cause to be discharged into the atmosphere any visible emissions from:
   a. Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to the next crusher, grinding mill or storage bin.
   b. Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, where such screening operations, bucket elevators, and belt conveyors process saturated materials up the first crusher, grinding mill, or storage bin in the production line.

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1 Compliance with the emissions limitations found in this general state permit is intended to be verified using raw material throughput records and the appropriate USEPA AP-42 emission factors or stack test data.

2 Compliance with visible emission standards of this general state permit is to be determined using 40 CFR 60, Appendix A, Method 9.

V. Emission Limitations (continued):

D. Env-A 2803.02, *Fugitive Emission Control Systems for Sand and Gravel Systems*: No person shall cause or allow a NMMPP to operate that is not equipped with a fugitive emission control system operated and maintained to control the emission of particulate matter.

E. Env-A 2806, *Fugitive Dust Control Within the Plant Property*: For all NMMPPs, the emission of dust caused by vehicular movement over access roads to, from, and within the NMMPP property shall be controlled. Means allowable for such control shall include paving or wetting the roadway. Emissions of dust from stockpiling shall be controlled. Means allowable for such control shall include wet suppression, windbreaks, enclosures, or soil stabilization.

F. The facility shall be limited to the emissions limitations listed in Table 2:

Table 2
Facility-wide Emissions[3]

Pollutant	Maximum tpy
NOx - Facilities located in Hillsborough, Merrimack, Rockingham and Strafford Counties	< 50
NOx - Facilities located in Belknap, Carroll, Cheshire, Coos, Grafton and Sullivan Counties	< 100
SO_2, PM_{10}, CO	< 100
VOCs	< 50
HAPs	< 10 for any single HAP and < 25 for any combination of HAPs

VI. Air Pollution Dispersion Modeling Impact Analysis Requirements:

Env-A 606, *Air Pollution Dispersion Modeling Impact Analysis Requirements*: Any Owner or Operator of a NMMPP where the following best management practice standards are performed by the source shall be exempt from the requirements to perform an air pollution dispersion modeling impact analysis for the NMMPP only. If there are other types of devices located at the facility or if the following best management practice standards are not performed, an air pollution dispersion modeling impact analysis may be required pursuant to Env-A 606:

A. The NMMPP shall be equipped with dust suppression controls operated to prevent, abate and control the emission of fugitive dust; and

B. The Owner or Operator shall conduct daily visual checks of the dust suppression controls to ensure that they are operational and functioning.

2 Facility-wide emission limits are set for the purpose of establishing this source as a minor source of air pollution. Such limits shall not be construed to allow this source to construct or install a new or modified source, area source or device except in the manner set forth in the New Hampshire Rules Governing the Control of Air Pollution and, specifically, Env-A 603.

VII. Emissions Testing Requirements:

A. When conditions warrant, the Division may require the Owner or Operator to conduct emissions testing in accordance with USEPA or other Division approved methods.

B. For those sources for which 40 CFR 60 Subpart OOO applies, testing for and opacity shall be performed in accordance with Env-A 800, *Testing and Monitoring Procedures*, 40 CFR 60.675, *Test Methods and Procedures,* and the following conditions, as applicable.

C. In determining compliance with the particulate standards in Conditions V.C.1 and 2, the Owner or Operator shall use Method 9 and the procedures in 40 CFR 60.11, with the following additions:

1. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
2. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.
3. For affected facilities using wet dust suppression for particulate matter control, sometimes a visible mist is generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

D. When determining compliance with the fugitive emissions standards for any affected facility described under Condition V.C.1, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

1. There are no individual readings greater than 10% opacity; and
2. There are no more than 3 readings of 10% for the 1-hour period.

E. When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under Condition V.C.2, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

1. There are no individual readings greater than 15% opacity; and
2. There are no more than 3 readings of 15% for the 1-hour period.

F. The Owner or Operator may use the following as alternatives to the methods and procedures specified in this section: For the method and procedure of Condition VII.C, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, then either of the following procedures may be used:

1. Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream; or
2. Separate the emissions so that the opacity of emissions from each affected facility can be read.

VII. Emissions Testing Requirements (continued):

G. If, after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting any rescheduled performance test required in this section, the Owner or Operator of an affected facility shall submit a notice to the USEPA at least 7 days prior to any rescheduled performance test.

H. Initial Method 9 performance tests under 40 CFR 60.11 and Condition VII.B are not required for:

1. Wet screening operations and subsequent screening operations, bucket elevators and belt conveyors that process saturated material in the production line up to, but not including, the next crusher, grinding mill or storage bin.
2. Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, that process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

VIII. Recordkeeping Requirements:

A. Env-A 902, *Availability of Records*: The Owner or Operator shall keep the records required by this permit on file for a minimum of 5 years. Records for this facility shall be maintained by the Owner or Operator and be available for review by the Division upon request.

B. Subject to Env-A 103, *Claims of Confidentiality*, all data submitted to the Division, including emission data and applicable emission limitations, shall be available to the public.

C. Env-A 903.02, *General Recordkeeping Requirements for Process Operations*: The Owner or Operator of each process operation shall keep the following records for the NMMPP on a monthly basis:

1. The total quantity of all materials processed; and
2. The hours of operation.

D. Env-A 906, *Additional Recordkeeping Requirements*: The Owner or Operator shall maintain additional records, as necessary, for the purpose of demonstrating compliance with all state and federal statutes, rules, regulations, and permits. These additional records shall include, but are not limited to a 12-month running total record of facility-wide emissions of pollutants identified in Table 2, which shall include emissions from non-permitted devices for the purpose of demonstrating compliance with the annual facility-wide emission limitations set forth in Condition V to establish the Facility as a Synthetic Minor Source of Criteria Pollutants.

IX. Reporting Requirements:

A. Env-A 907.01, *General Reporting Requirements*:

1. The Owner or Operator shall submit an annual emissions report to the Division on or before April 15th of the following year. For example, the annual emissions report for calendar year 2003 shall be submitted on or before April 15, 2004.

2. The annual emissions report pursuant to Condition IX.A.1 above, shall include the following information:
   a. Actual calendar year emissions of TSP and PM_{10} from the NMMPP on a monthly basis;
   b. The methods used in calculating such emissions in accordance with Env-A 704.02, *Determination of Actual Emissions for use in Calculating Emission-Based Fees*; and
   c. All information in accordance with Condition VIII.C.

B. 40 CFR60.676, *Reporting and Recordkeeping*

1. Equipment Replacement: Each Owner or Operator seeking to comply with Condition IV.C shall submit to the Division the following information about the existing device being replaced and the replacement piece of equipment.
   a. For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:
      i. The rated capacity in tons per hour of the existing device being replaced; and
      ii. The rated capacity in tons per hour of the replacement equipment.
   b. For a screening operation:
      i. The total surface area of the top screen of the existing screening operation being replaced; and
      ii. The total surface area of the top screen of the replacement screening operation.
   c. For a conveyor belt:
      i. The width of the existing belt being replaced; and
      ii. The width of the replacement conveyor belt.
   d. For a storage bin:
      i. The rated capacity in tons of the existing storage bin being replaced; and
      ii. The rated capacity in tons of the replacement storage bin.
2. Performance Test Reporting: The Owner or Operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in Condition V, including reports of opacity observations made using Method 9 to demonstrate compliance with Conditions V.C.1, and 2.

IX. Reporting Requirements (continued):

3. The Owner or Operator of any screening operation, bucket elevator, or belt conveyor that processes saturated material and is subject to Condition V.C.4 and subsequently processes unsaturated material, shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator conveyor is then subject to the 10% opacity limit in Condition V.C.1 and the emission test requirements of Condition VII.B. Likewise a screening operation, bucket elevator, or belt conveyor that processes unsaturated material but subsequently processes saturated material shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the no visible emission limit in Condition V.C.4.
4. Initial Startup Notification: A notification of the actual date of initial startup of each affected facility shall be submitted to the USEPA.
   a. For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the Owner or Operator to the USEPA. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.
   b. For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.
5. Reports required by Condition IX.B shall be submitted to the Division and to the USEPA. The address for the USEPA is:

Chief, Air Technical Unit
U.S. Environmental Protection Agency – Region 1
One Congress Street
Suite 1100 Mail Code SEA
Boston, MA 02203-2211

X. Permit Deviation Reporting Requirements:

A. Env-A 101, *Definitions*:

1. A *permit deviation* is any occurrence that results in an excursion from any emission limitation, operating condition, or work practice standard as specified in either a Title V permit, state permit to operate, temporary permit or general state permit issued by the Division.
2. An *excess emission* is an air emission rate that exceeds any applicable emission limitation.

B. Env-A 911.04(b), *Reporting Requirements*: In the event of a permit deviation that causes excess emissions, the Owner or Operator shall notify the Division of the permit deviation and excess emissions by telephone (603-271-1370), fax (603-271-7053) or e-mail (pdeviations@des.state.nh.us), within 24 hours of discovery of the permit deviation, unless it is a Saturday, Sunday, or state or federal legal holiday, in which event, the Division shall be notified on the next day which is not a Saturday, Sunday, or state or federal legal holiday.

XI. Emission-Based Fee Requirements:

A. Env-A 704.03, *Calculation of Emission-Based Fees:* The Owner or Operator shall pay an emission-based fee annually as calculated each calendar year for the devices covered by this permit.

B. Env-A 616, *Determination of Actual Emissions:* The Owner or Operator shall determine the total actual annual emissions from these devices for each calendar year in accordance with the methods specified in Env-A 616.

C. The Owner or Operator shall calculate the annual emission-based fee for each calendar year in accordance with the procedures specified in Env-A 704.03 and the following equation:

$$FEE = E * DPT * CPIm * ISF$$

Where:

FEE =	The annual emission-based fee for each calendar year as specified in Env-A 704.
E =	The emission-based multiplier is based on the calculation of total annual emissions as specified in Env-A 704.02 and the provisions specified in Env-A 704.03(a).
DPT =	The dollar per ton fee the Division has specified in Env-A 704.03(b).
CPIm=	The Consumer Price Index Multiplier as calculated in Env-A 704.03(c).
ISF =	The Inventory Stabilization Factor as specified in Env-A 704.03(d).

D. The Owner or Operator shall contact the Division each year to obtain the value of the Inventory Stabilization Factor and the Consumer Price Index Multiplier.

E. Env-A 704.04, *Payment of Emission-Based Fees*: The Owner or Operator shall submit, to the Division, payment of the emission-based fee for each calendar year by October 15th of the following calendar year. The emission-based fee shall be submitted to the following address:

New Hampshire Department of Environmental Services
Air Resources Division
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095
ATTN: Emissions Inventory